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DW COMMUNICATIONS, INC.
1725 FIELD AVE.
METAIRIE, LA 70001
(504)887-7930

MAY 28, 1997

William F. Caton, Acting Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

RE: WT Docket No. 97-112

Dear Mr. Caton:

Transmitted herewith is an original and nine copies of our comments in the above referenced proceeding.

Sincerely,

Robert C. Wallenburg

Robert C. Wallenburg, P.E.
President

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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In the Matter of	)	
	)	
Cellular Service and Other Commercial Mobile Radio Services in the Gulf of Mexico	)	WT Docket No. 97-112
	)	
	)	

To: The Commission

Comments of DW Communications, Inc.

DW Communications, Inc. ("DW") pursuant to Section 1.415 of the Commission's rules hereby respectfully submits its Comments in the above captioned proceeding.

I. BACKGROUND

DW and its principals have operated a small business[1] land mobile communications concern in New Orleans, Louisiana for over 28 years, having previously owned or managed over 60 trunked 800 MHz SMR channels in Southeast Louisiana. DW participated in the recent 900 MHz SMR auction and is currently licensed on two 900 MHz service blocks in the New Orleans-Baton Rouge MTA ("NO-BR MTA"). Inasmuch as the greatest magnitude of petroleum related activity in the Gulf of Mexico is off the

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[1] See Amendment of Parts 2 and 90 of the Commission's Rules to Provide for the Use of 200 Channels Outside the Designated Filing Areas in the 896-901 MHz and the 935-940 MHz Bands Allocated to the Specialized Mobile Radio Pool, Second Order on Reconsideration and Seventh Report and Order, PR Docket No. 89-553, PP Docket No. 93-253, GN Docket No. 93-252, released September 14, 1995 (900 MHz SMR Second Order on Reconsideration) at para. 17.

Louisiana coast, this proceeding is of great significance to currently licensed SMR operators in the NO-BR MTA, which adjoins the Gulf of Mexico.

II. LOSS OF SERVICE AREA TO EXISTING 900 MHz MTA LICENSEES

In the Commission's Third Report and Order in GN Docket No. 93-252 (CMRS Third Report and Order)[2] it was decided that Major Trading Areas (MTAs)[3] were to be the basis for wide-area 900 MHz SMR licensing. Rand Mc Nally defines 47 MTAs and the Commission established four additional licensing regions for a total of 51 MTAs.[4]

MTA licensees are permitted to locate their transmitters anywhere in their respective MTA, the only restrictions being co-channel protection to incumbent 900 MHz SMR licensees[5] and the field strength limits of their stations at MTA borders.[6] The criteria established was that "MTA licensees should not be permitted to exceed a signal level of 40 dBuV/m at their service area boundaries, unless all bordering MTA licensees agree to a higher field strength."[7]

Inasmuch as the Commission had not previously either addressed or even alluded to the possibility that it would establish additional MTAs beyond the four that it created prior to the auction, it would be reasonable for an auction participant to believe that the

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[2] Implementation of Sections 3(m) and 332 of the Communications Act - Regulatory Treatment of Mobile Services, Third Report and Order, GN Docket No. 93-252, 9 FCC Rcd 7988 (1994) (CMRS Third Report and Order) at para. 114.

[3] Rand Mc Nally & Company is the copyright owner of the MTA listings.

[4] CMRS Third Report and Order (footnote 198).

[5] Id. at para. 118-119.

[6] Id. at para. 145.

[7] Amendment of Parts 2 and 90 of the Commission's Rules to Provide for the Use of 200 Channels Outside the Designated Filing Areas in the 896-901 MHz and the 935-940 MHz Bands Allotted to the Specialized Mobile Radio Pool, Second Report and Order and Second Further Notice of Proposed Rulemaking, PR Docket No. 89-553, released April 17, 1995 (900 MHz SMR Second Report and Order) at paras. 48-49.

geographic boundaries established for all of the MTAs would remain static. Additionally, since the maximum signal level at an MTA licensee's service area boundary was established to protect bordering MTA licensees,[8] it would also be reasonable for an auction participant to conclude that should there be no bordering MTA in a particular direction, there would be no corresponding restrictive limits on signal levels in that direction.

For the Commission to create new 900 MHz SMR geographic service areas where none existed at the time of the auction is, in effect, reducing the service area of incumbent MTA licensees who, in good faith, based their bidding price on having the authority to provide service to the geographic area in question. In the instant case the Commission is requesting comment on whether it should extend geographic area licensing of 900 MHz SMR to the Gulf of Mexico. Not only would this action be grossly unfair to existing 900 MHz SMR MTA licensees but this action would have the potential to undermine the credibility of the Commission's auction program that has heretofore proven very successful. Should the Commission determine that there is a compelling need for SMR service in the Gulf, it should limit the geographic licensing to the 800 MHz SMR spectrum which has yet to be auctioned and not compromise the rights of incumbent 900 MHz SMR licensees.

To define the boundary between the NO-BR MTA and the proposed geographic licensing area is also a question that must be answered. The Louisiana coastline has experienced significant erosion over the past 50 years due to the construction of levees,

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[8] Id.

canals, other waterways, and the like. In United States v. State of Louisiana[9] it was ultimately decided that the Louisiana coastline was to be based on topographic surveys of 1954 which showed a line of demarcation between the coast and the Gulf of Mexico as it existed at that time. Due to erosion that has occurred since 1954 there are in some instances up to 20 statute miles between the legally established demarcation line and the coastline as it exists today. DW contends that, at the very least, any geographic licensing area that might be established for 900 MHz SMR operation in the Gulf be based upon the line of demarcation established by legal precedence.

III. POTENTIAL FOR INTERFERENCE TO EXISTING SYSTEMS

Radio transmissions propagate differently due to terrain, natural obstructions, foliage, temperature, and various other factors. Because of the relatively few obstacles radio signals encounter over water and coastal marshland, and also the frequent potential for temperature inversions that can cause radio signals to travel duct-like for many miles, DW is concerned that frequent and significant interference to its existing land-based systems will be caused by the proposed SMR systems operating in the Gulf of Mexico. Interference to systems operating at 450 MHz and 800 MHz from licensees operating in the Gulf has been a frequent source of interference to systems 50 to 150 miles or more inland from the coastline and there is no reason to believe that 900 MHz propagation would be any different.

Additionally, it is a certainty that 900 MHz SMR operators in the Gulf would be

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[9] United States v. State of Louisiana, No. 9 Original, filed 1954, decided by U.S. Supreme Court 1981.

providing service to crewboats whose antenna height can easily reach 30 to 40 feet above the water line when typically mounted on the masts of the boats. Even this height pales when the height of offshore platforms, often the location of control stations, is taken into account. One recently installed platform stands 425 feet out of the water with the operating deck of the platform approximately half that height.[10] These heights must then be compared to land-based portables and mobiles of 6 foot height and typical land-based control station heights of approximately 20 feet above ground.

DW has chosen to use a traditional analog trunking format for its 900 MHz SMR systems inasmuch as low power, low height cellular-type digital systems are not currently available at 900 MHz and would also prove too costly to implement. Traditional trunking techniques require that the trunked systems use antennas at high HAAT for both transmitting and receiving. DW's land-based systems will typically utilize antennas mounted on rooftops or towers at the 400 foot to 500 foot level.

Given the height parameters described above, it would be difficult for anyone with communications experience to deny the strong potential for frequent, severe interference to land-based receiving systems by mobiles and control stations operating in the Gulf of Mexico. Consequently, not only will 900 MHz SMR MTA licensees be compromised by having to reduce their signal level at the proposed service area boundary, but they will experience frequent harmful interference to their systems operating far from the Gulf of Mexico.

The Commission, in this proceeding, has chosen to incorporate a petition for

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[10] The structure cited is the Ram-Powell oil platform operated by Shell Offshore and recently located 125 miles southeast of New Orleans.

rulemaking filed on behalf of Petro Com that seeks an amendment to Part 90 of the Commission's rules to provide co-channel interference protection for SMR licensees operating in or near the Gulf of Mexico.[11] Petro Com is in the process of constructing a multi-site 800 MHz SMR system in the Gulf of Mexico and is "concerned that the Commission's current rules will not afford adequate protection from co-channel systems operating in or near the GOM (Gulf of Mexico)."[12] Petro Com proceeds to document by engineering analysis that, instead of the FCC prescribed 70 mile separation between co-channel stations,[13] there should be a minimum separation of 176.5 miles between an existing station in the Gulf of Mexico and any proposed station (including land-based stations) whose 22 dbu contour would extend into the Gulf.[14]

The very fact that Petro Com, a cellular carrier with extensive experience in utilizing 800 MHz frequencies in the Gulf, is proposing such a significant rule "to avoid the substantial interference to SMR operations in or near the GOM which will result under the existing co-channel separation rules"[15] clearly demonstrates the analogous situation that would exist at 900 MHz.

There are but a few technical suggestions that may be effective in reducing the predicted interference to currently licensed land based systems should the Commission proceed to establish a new 900 MHz MTA in the Gulf of Mexico.

1. Offset the channels assigned for used in the Gulf of Mexico by 6.25 KHz from the regularly assigned 900 MHz SMR channels.

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[11] See Letter from Kenneth W. Burnley, Myers Keller Communications Law Group, to David Furth, FCC, dated February 21, 1997.

[12] Id. At pp. 1-2.

[13] See 47 C.F.R 90.621(b).

[14] Petro Com at p. 6.

[15] Id. at p.7.

2. Impose significant restrictions on antenna height for mobiles and control stations in the Gulf so as not to exceed that of a typical land-based systems.
3. Mandate use of horizontal antenna polarization by mobiles and control stations in the Gulf.
4. Provide a zone of protection that restricts use in the Gulf to areas significantly distant from the coastline.
5. Restrict operations in the Gulf to a secondary, non-interference basis to land-based systems.

IV. SMALL ENTITIES AFFECTED BY THE PROPOSED RULEMAKING

DW, as previously noted, is a small business as defined in the 900 MHz Second Order on Reconsideration and also by the definition of small business approved by the Small Business Administration. It is our contention that any small business holding either a 900 MHz SMR DFA license within 75 miles of the Gulf of Mexico coastline or any small business holding a 900 MHz SMR MTA license in the NO-BR MTA or the other 5 MTAs adjourning the Gulf of Mexico would be adversely affected by a decision to establish geographic 900 MHz SMR licensing in the Gulf of Mexico.

To the best of our knowledge there were 17 successful small business bidders in the 900 MHz SMR auction for blocks in the MTAs that border on the Gulf of Mexico. There were approximately 42 small businesses licensed in DFAs within 75 miles of the Gulf of Mexico prior to the start of the 900 MHz SMR auction. Thus a subjective total of small businesses to be adversely affected by the proposed rulemaking regarding 900 MHz SMR is approximately 59.

V. CONCLUSION

DW asserts that it would be both unfair and detrimental to existing 900 MHz SMR licensees operating systems along the Gulf of Mexico for the Commission to

establish at this point in time 900 MHz SMR geographical licensing in the Gulf. Loss of service area by 900 MHz SMR MTA licensees, the potential for interference to existing 900 MHz SMR systems due to unique propagation characteristics, and the potential of financial harm to a multitude of small businesses all weigh heavily against this proposal.

Respectfully submitted,

DW Communications, Inc.

Robert C. Wallenburg

Robert C. Wallenburg, P.E.
President